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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,747	12/27/2000	Alma K. Schurig	021180-2.10	1897
28765	7590	04/22/2005	EXAMINER	
WINSTON & STRAWN LLP 1700 K STREET, N.W. WASHINGTON, DC 20006			MUNOZ, GUILLERMO	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/753,747	SCHURIG, ALMA K.	
	Examiner	Art Unit	
	Guillermo Munoz	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8, 10, 18-21, 25, 28 and 35 is/are allowed.
- 6) ☒ Claim(s) 1-4, 9, 11-17, 22-24, 26-27, 29-34, and 36-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, see Amendment, filed December 02, 2004, with respect to the rejection(s) of claim(s) 1-4, 9-17, 22-27, and 29-45 under 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Manchester et al. and Stemmons et al..

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 9, 11-17, 22-24, 26-27, 29-34, and 36-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manchester et al. in view of Stemmons et al..

Regarding claim 1, Manchester et al. disclose a Passive System Used To Merge Telephone and Broadband Signals Onto One Coaxial Cable which comprise almost all the claimed subject matter in claim 1 as follows:

“a first cable configured to transmit differential data” (Manchester et al. teach the ring line and tip line of the telephone twisted wire pairs carry a balanced signal, note col. 1 lines 49-50.);

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“a converter” (Manchester et al. teach a combiner used to process low-frequency and high-frequency data from a telephone signal to a coaxial signal, note elements 126, 136, and 146 of figure 1.);

“in electrical communication with the first cable” (As stated above, the combiner receives the telephone lines and is thereby in electrical communication with the first cable.);

“and to transmit power between data cables” (Manchester et al. explains that the outer conductor surrounds and shields the inner conductor of a coaxial cable, note col. 1 line 61-62. Manchester et al. teach the telephone line carries power and in order for the coaxial cable to carry this power, the outer conductor must be isolated from ground, note col. 2 line 63-65.);

“and a second cable configured to transmit coaxial data” (Manchester et al. teach a coaxial cable connected to the combiner for receiving the information from the telephone wire, note element 204 of figure 2.);

“and in electrical communication with the converter”( As stated above, the combiner transmits to the coaxial cable and is thereby in electrical communication with the second cable.)

Manchester teach a broadband signal is received separate from the telephone signal over an exterior coaxial cable, therefore, Manchester does not explicitly teach the converter configured to convert from differential data to coaxial data and from coaxial data to differential data.

Stemmons et al. teach a Computer Network Interconnecting Apparatus, which ac couples and converts balanced signals from respective twisted wire pairs to respective unbalanced coaxial cables.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time to modify Manchester et al.'s combiner with Stemmons et al.'s broadband signal received over twisted wire pair, since at the time of the invention Stemmons et al. teaches that broadband could be received with twisted wire pairs.

Regarding claim 2; as applied to claim 1 above, Stemmons et al. further teach:

"the converter comprises a plurality of transformers" (Stemmons et al. further teach the claimed subject matter by illustration in figure 3, elements 34 and 36.)

Regarding claim 3; as applied to claim 1 above, Stemmons et al. further teach:

"first cable comprises Cat-5 cable" (Stemmons et al. further teach the claimed subject matter by illustration in figure 3, element 50.

Regarding claim 4; as applied to claim 1 above, Stemmons et al. further teach:

"the second cable comprises first and second coaxial cables...shield at least partially surrounding the conductor" (Stemmons et al. further teach the claimed subject matter by illustration in figure 3, elements 60 and 62. Stemmons et al. does not explicitly illustrate the shield at least partially surrounding the conductor, however, coaxial are generally know to comprise a shield for surrounding the center conductor.)

Regarding claim 9; as applied to claim 4 above, Stemmons et al do not explicitly teach:

"the second cable further comprises an outer shield at least partially surrounding the first and second coaxial cables". It would have been obvious to one having ordinary skill in the art at the time of the invention to replace Stemmons et al.'s two BNC cables with a single twinaxial cable.

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Regarding claim 11; as applied to claim 1 above, Manchester et al teach the transmission signals caring television signals and telephone signals, however Manchester et al. does not explicitly state the receiving cable television and phone having an amplifier for amplifying the received signal. Televisions and telephone receivers are generally known to include amplifiers for improving reception.

It would have been within the level of one having ordinary skill in the art to characterize the amplifiers of the receiving television and telephone signals as being in electrical communication with Manchester et al.'s coaxial cable element.

Regarding claim 12; as applied to claim 1, Manchester et al. further teach:

“a switch in electrical communication with the first converter and having a plurality of ports...data” (Manchester et al. further teach the claimed subject matter by illustration in figure 1 element 114.)

Regarding claim 13, see claim 3.

Regarding claim 14; as applied to claim 12, Manchester et al. further teach a plurality of external broadband signals in communication with switch 114, note element 114 of figure 1.

Stemmons et al. suggest the transmission of broadband signals across twisted wire pairs, by the inherent operation of computer network communication over a twisted wire pair network, note col. 2 lines 65-66.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to characterize Manchester et al.'s broadband conductors as twisted wire pair conductors in view of Stemmons et al., since Stemmons et al. suggest in col. 1 lines 20-22, that

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the use of existing twisting wire pair conductors would be more efficient than installing coaxial cables.

Regarding claim 15; as applied to claim 12, Manchester et al. further teach:

“a second converter...second converter” (Manchester et al. further teach the claimed subject matter by illustration in figure 1 elements 126, 136, and 146.)

Regarding claim 16, see claim 1.

Regarding claim 17, Manchester do not explicitly teach a “power manager”, however, it would have been obvious to one having ordinary skill in the art the operation of generating and transmitting telephone power would include a manager.

Regarding claim 22; as applied to claim 1, Stemmons et al. further teach:

“the first port” (Stemmons et al. further teach the claimed subject matter by illustration in figure 3, element 52.);

“a first transformer” (Stemmons et al. further teach the claimed subject matter by illustration in figure 3, element 38.);

“a second port” (Stemmons et al. further teach the claimed subject matter by illustration in figure 3, element 60.);

“a third port” (Stemmons et al. further teach the claimed subject matter by illustration in figure 3, element 62.);

“a second transformer” (Stemmons et al. further teach the claimed subject matter by illustration in figure 3, element 38.);

“a fourth port” (Stemmons et al. further teach the claimed subject matter by illustration in figure 3, element 54.)

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Regarding claim 23; as applied to claim 22, Manchester et al. do not explicitly state capacitors 432 and 434 of figure 4 are “blocking capacitors”, however, they are functionally the same.

Regarding claim 24; as applied to claim 22, Manchester et al. further teach “a power connector” (Manchester et al. teach a coaxial cable shield connected to the combining element for transmitting power, see claim 1.)

Regarding claim 26, see claim 11.

Regarding claim 27, see claim 1.

Regarding claim 29, see claim 9.

Regarding claim 30, see claim 11.

Regarding claim 31, Manchester et al. further teach

“routing the differential data and the power to a destination” (Manchester et al. further teach the claimed subject matter by illustration in figure 4 element 428.

Regarding claim 32, Manchester et al. do not explicitly teach “routing the power to a switch”, however, the functionality of elements 130, 140, and 152 are the same.

Regarding claim 33, Manchester et al. do not explicitly state “segments in the neighborhood area network”, however, the elements 102, 104, and 106 are the same.

Regarding claim 34, Manchester et al. further teach:

“filtering the power” (Manchester et al. further teach the claimed subject matter by illustration in figure 4, element 224.)

Regarding claim 36, see claim 12.

Regarding claim 37, see claim 3.



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Regarding claim 38, Manchester do not explicitly teach a “power control”, however, it would have been obvious to one having ordinary skill in the art the operation of generating and transmitting telephone power would include a control.

Regarding claim 39, see claim 1.

Regarding claim 40, Manchester do not explicitly teach a “storage battery”, however, it would have been obvious to one having ordinary skill in the art the operation of generating and transmitting telephone power would include a storage battery.

Regarding claim 41, Manchester do not explicitly teach a “AC power source”, however, it would have been obvious to one having ordinary skill in the art to characterize the signal received through the broadband signal cable as an AC power source providing AC power, since power is an inherent characteristic of the broadband signal.

Regarding claim 42, see claim 15.

Regarding claim 43; as applied to claim 23, Manchester et al. do not explicitly state capacitors 432 and 434 of figure 4 are “blocking capacitors”, however, they are functionally the same.

Regarding claim 44, see claim 11.

Regarding claim 45, see claim 12.

Regarding claim 46; as applied to claim 15, Manchester et al. further teach the claimed “network system” (Manchester et al. further teach the claimed subject matter by illustration in figure 1 element 100.)

Regarding claim 47, see claim 1.

Regarding claim 48, see claim 12.

***Allowable Subject Matter***

Claims 5-8, 10, 18-21, 25, 28, and 35 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 5-8, 18-21, 28, and 35 are considered allowable because the present invention comprises a method for and converter that receives from a first cable differential data and converts the differential data to coaxial data and transmits the coaxial data on a second cable having a first and second coaxial cable. The converter additionally transmits power between the first cable and second along a shield of the first and second coaxial cable. The closest art, Manchester et al. (US Patent Number 6,144,399) shows a similar circuit including a method for transmitting power from a twisted wire pair to a coaxial cable. However, Manchester et al. fails to teach transmitting the coaxial data on a second cable having a first and second coaxial cable. This distinct feature has been included in independent claims 5, 18 and 28 rendering them allowable. Claims 6-8, 19-21 and 35 are dependent on allowed claims and are thereby allowed.

Claims 10 and 25 are considered allowable because the present invention comprises a method for and converter that comprises auxiliary power lines and the second cable comprises auxiliary power lines in electrical communication with the auxiliary power lines of the converter. The converter additionally transmits power between the first cable and second along a shield of the first and second coaxial cable. None of the references of record comprise the claimed limitation. This distinct feature has been included in independent claims 10 and 25 rendering them allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

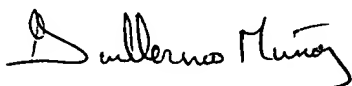
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Munoz whose telephone number is 571-272-3045.

The examiner can normally be reached on Monday-Friday 8:30a.m-4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GM  
April 14, 2005

  
**JEAN B. CORRIELUS**  
**PRIMARY EXAMINER**

4-18-05